FIG.1A

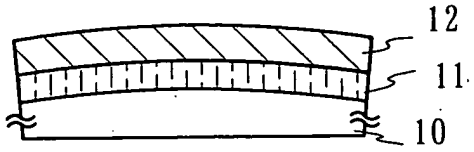


FIG.1B

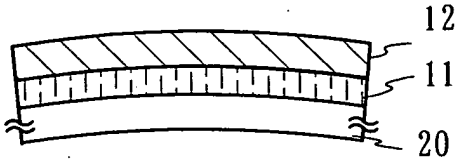


FIG.1C

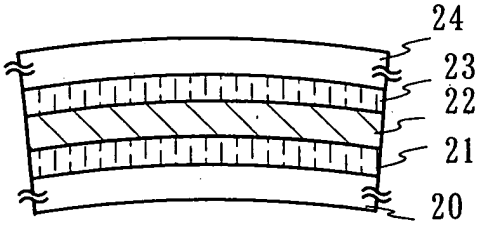
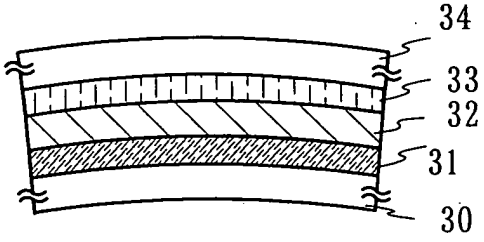


FIG.1D



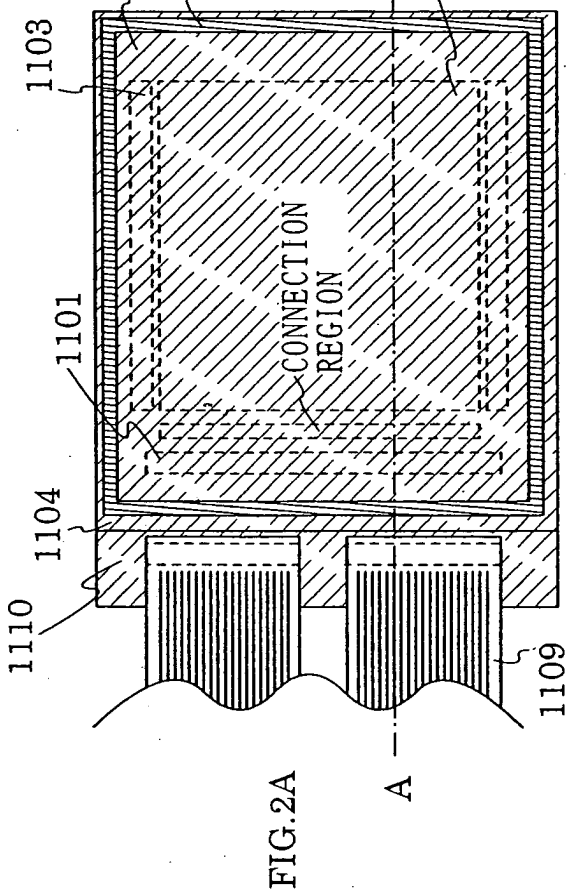

1103
1107
1105
A'
1102
1101
CONNECTION REGION
1104
1110
1109
A

FIG.2A

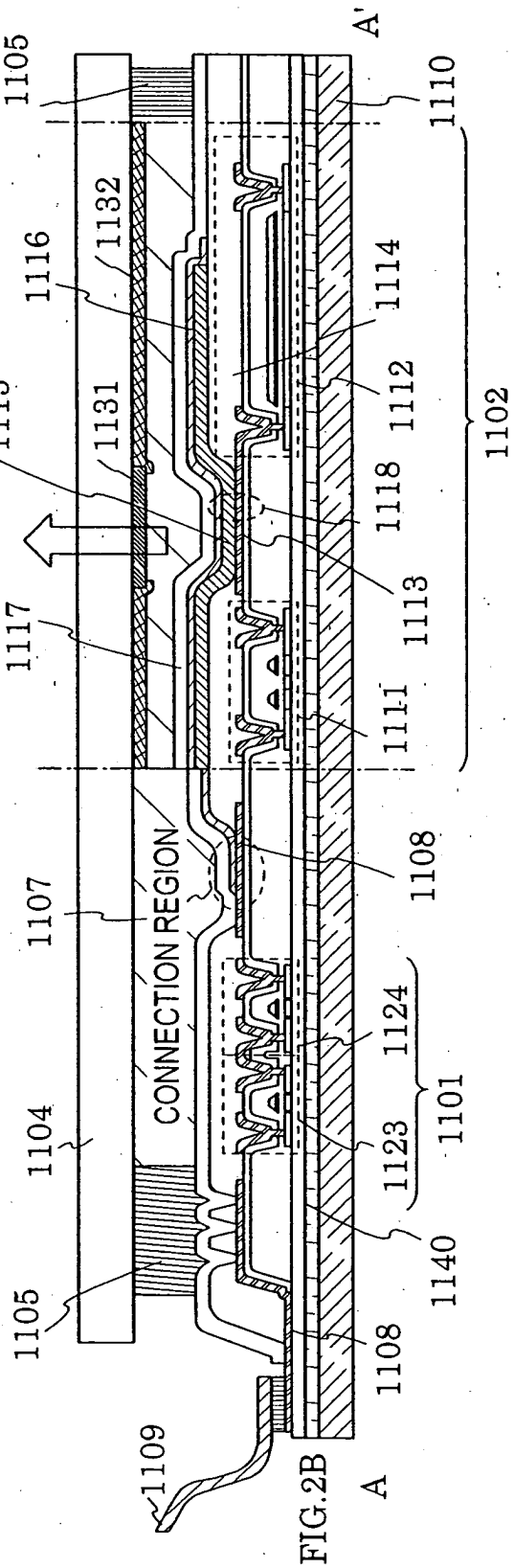

1105
A'
1110
1116
1132
1114
1115
1131
1112
1102
1118
1113
1117
1111
1108
1107
CONNECTION REGION
1124
1104
1123
1101
1140
1105
1108
1109
A

FIG.2B

FIG.3A

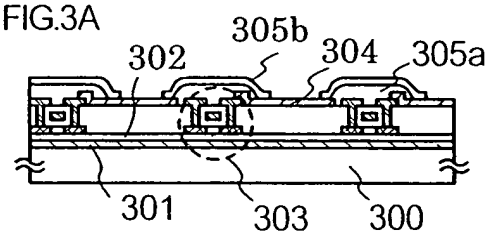


FIG.3B

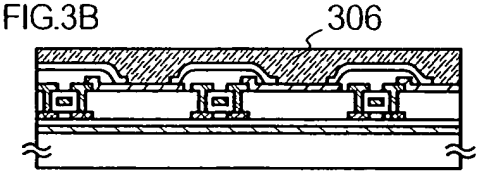


FIG.3C

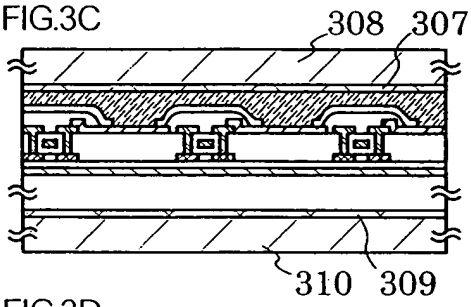


FIG.3D

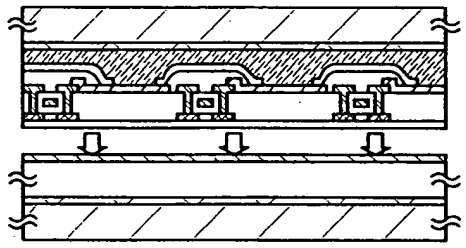


FIG.3E

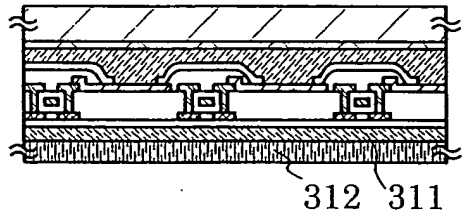


FIG.3F

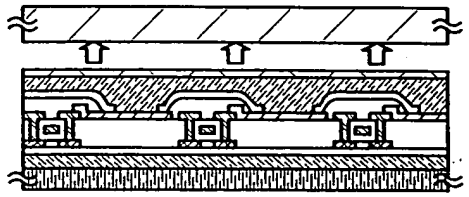


FIG.3G

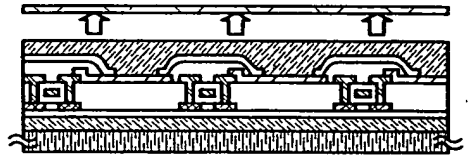


FIG.3H

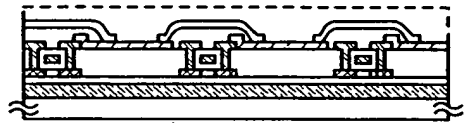


FIG.3I

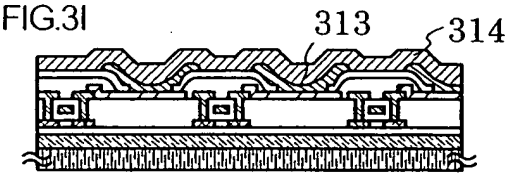


FIG.3J

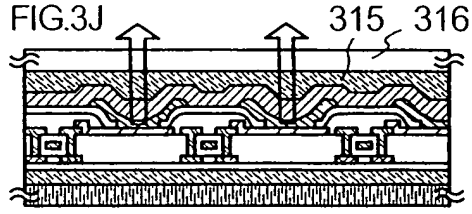


FIG.4A

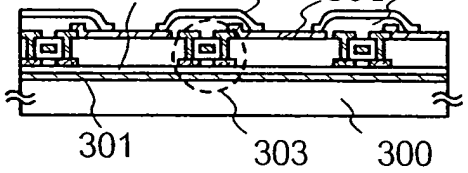


FIG.4B

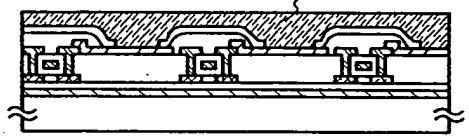


FIG.4C

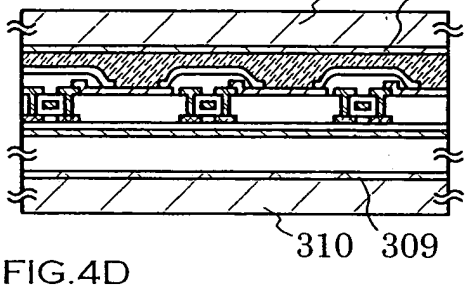


FIG.4D

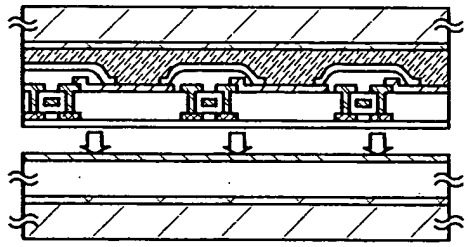


FIG.4E

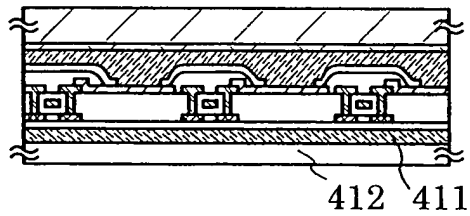


FIG.4F

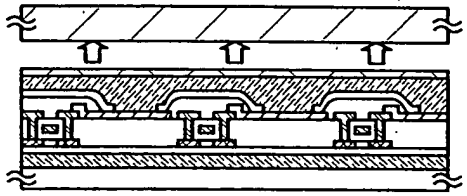


FIG.4G

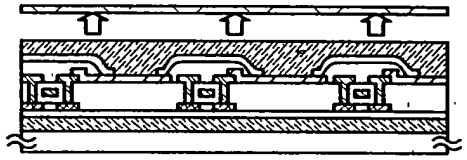


FIG.4H

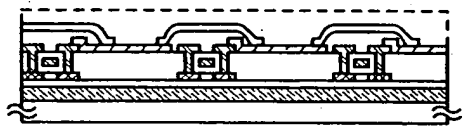


FIG.4I

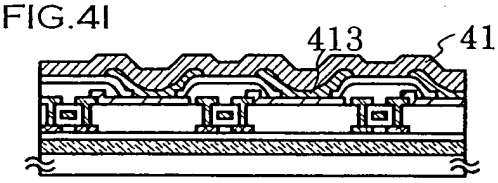
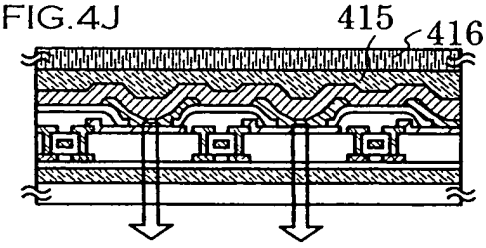


FIG.4J



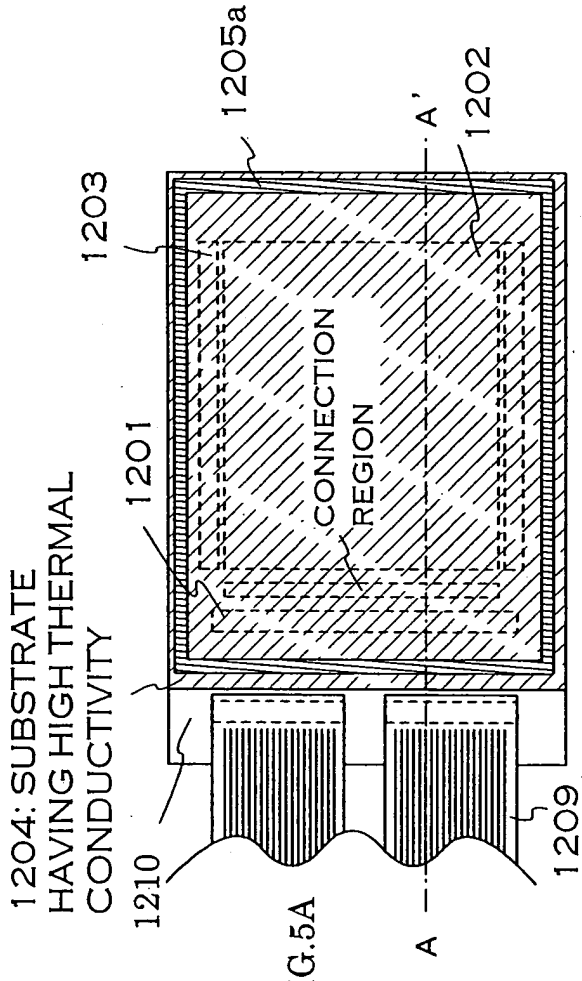

1204: SUBSTRATE HAVING HIGH THERMAL CONDUCTIVITY
1201
1203
1205a
A'
1202
CONNECTION REGION
1210
1209
A

FIG.5A

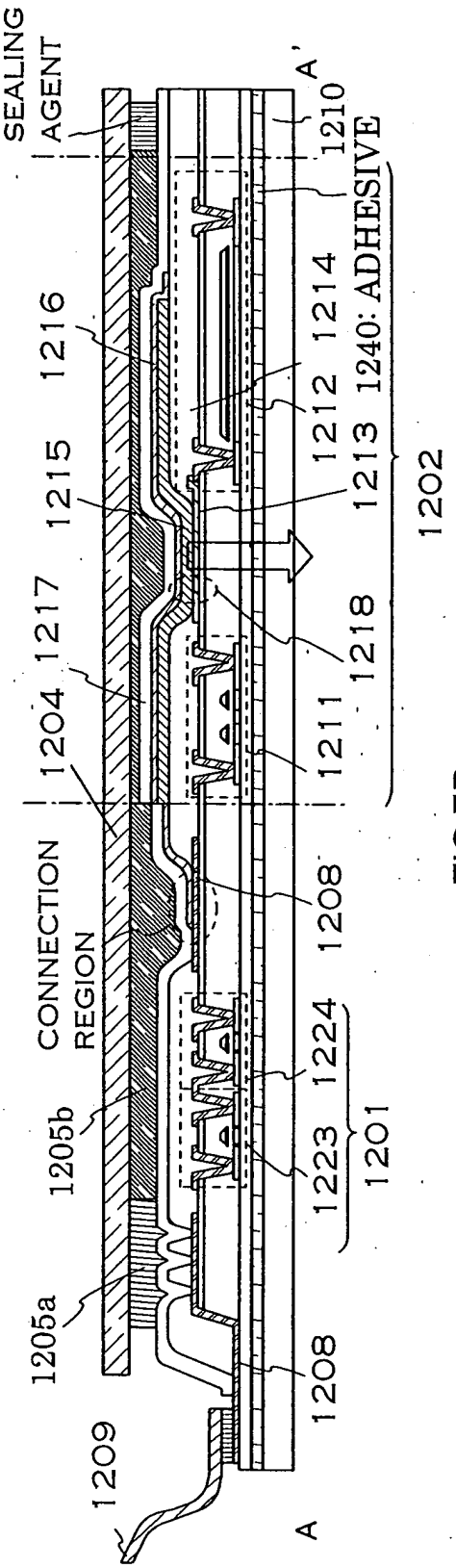
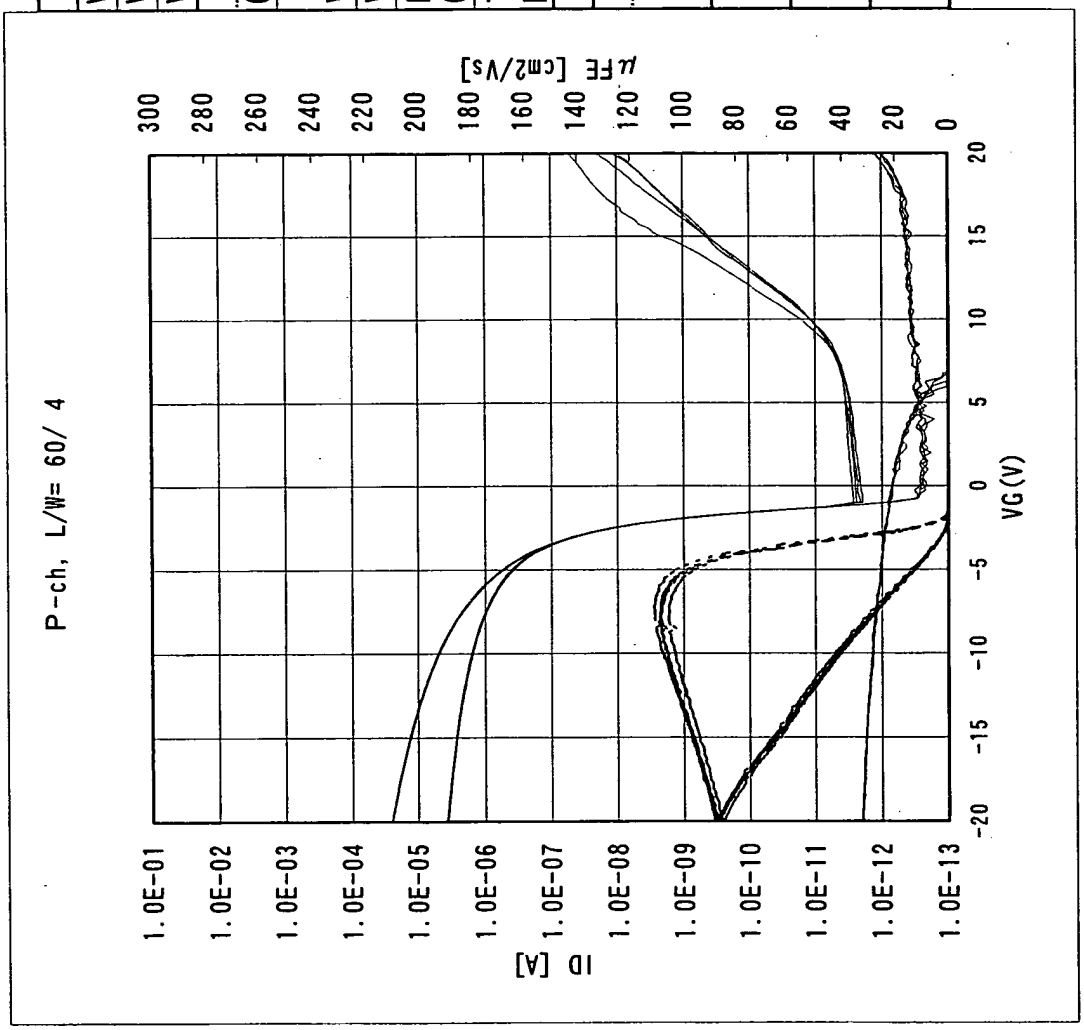

1205: SEALING AGENT
A'
1210
1216
1214
1212
1240: ADHESIVE
1215
1213
1202
1217
1218
1204
1211
CONNECTION REGION
1208
1205b
1224
1223
1201
1205a
1208
1209
A

FIG.5B



MEASUREMENT PARAMETERS		
VD start		-1
VD step		-13
VD step number		2
CALCULATION PARAMETERS		
CHANNEL TYPE		P
VALUE OF L [um]		60.0
VALUE OF W [um]		4.0
RELATIVE DIELECTRIC CONSTANT		4.1
THICKNESS OF OXIDE FILM[nm]		110
CALCULATION RESULTS		
Shift_1[V]	-1.029	-1.016
	-1.042	-1.033
Vth [V]	-2.582	-2.531
	-2.605	-2.649
S-value [V/dec]	0.268	0.264
	0.271	0.278
μFE(max) [cm2/Vs]	109.1	111.2
	105.7	108.7

FIG. 6

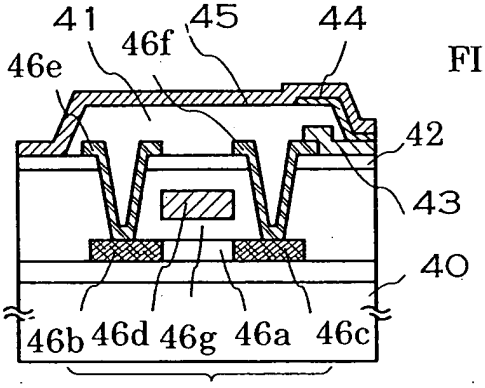


FIG.7A

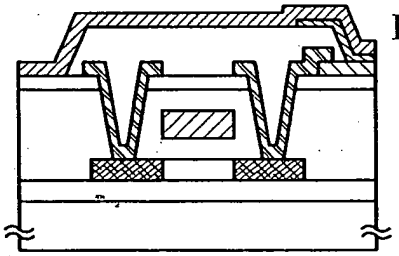


FIG.7B

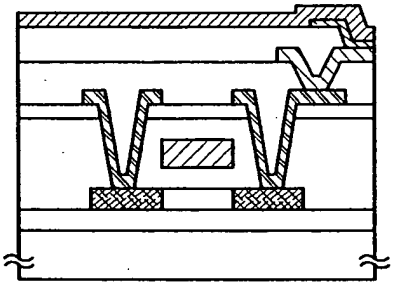


FIG.7C

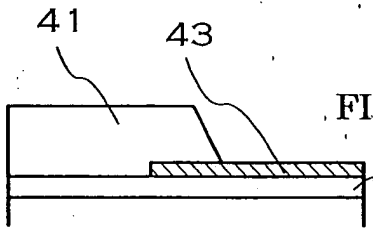


FIG.7D

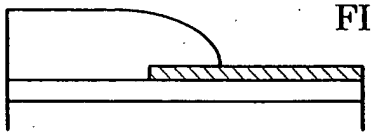


FIG.7E

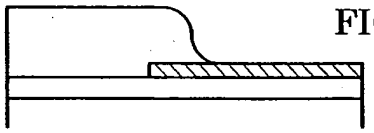


FIG.7F

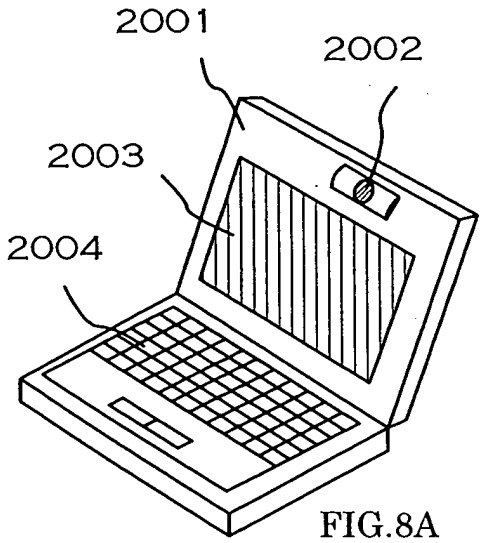


FIG.8A

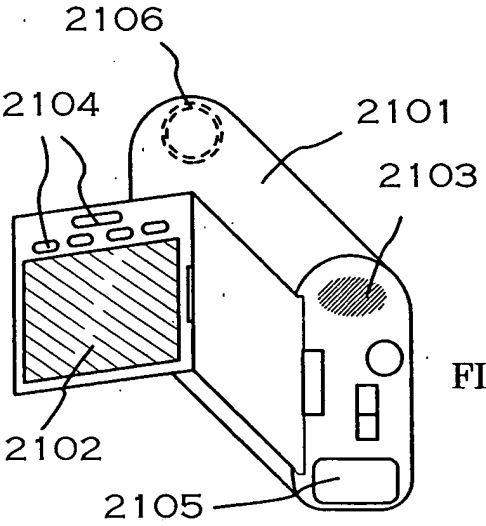


FIG.8B

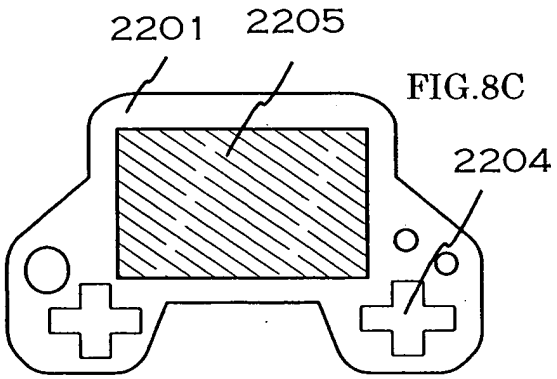


FIG.8C

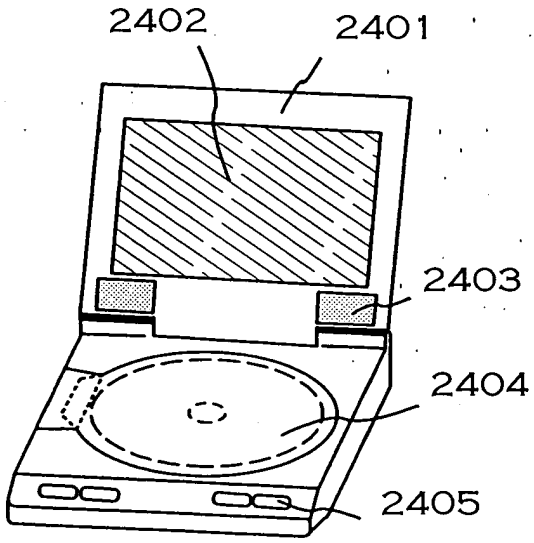


FIG.8D

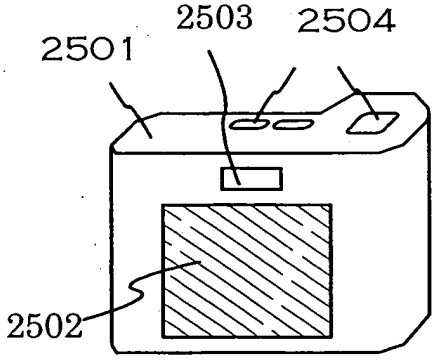


FIG.8E

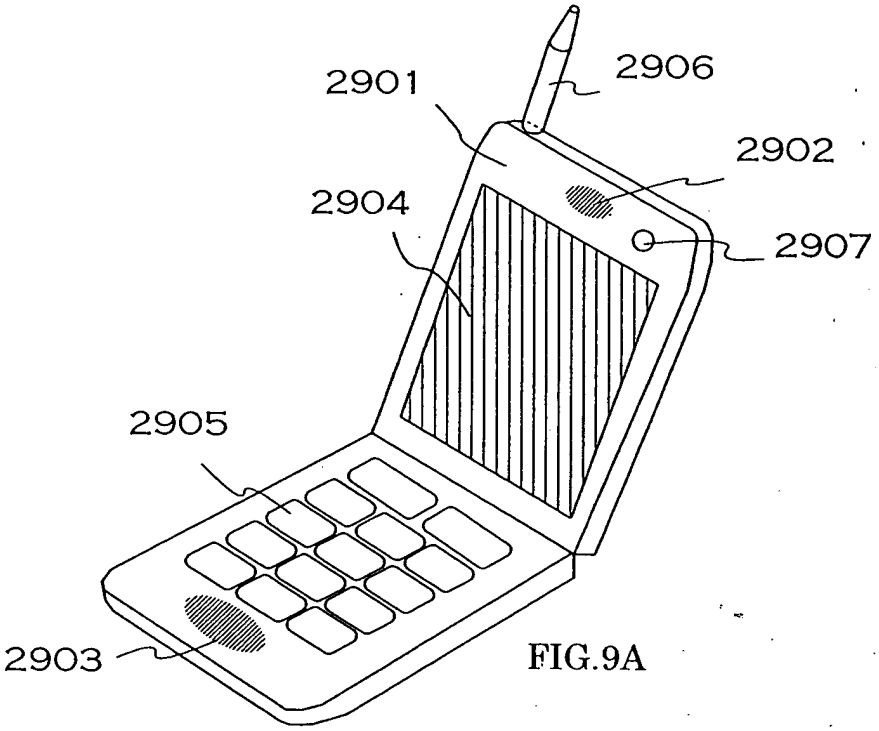


FIG.9A

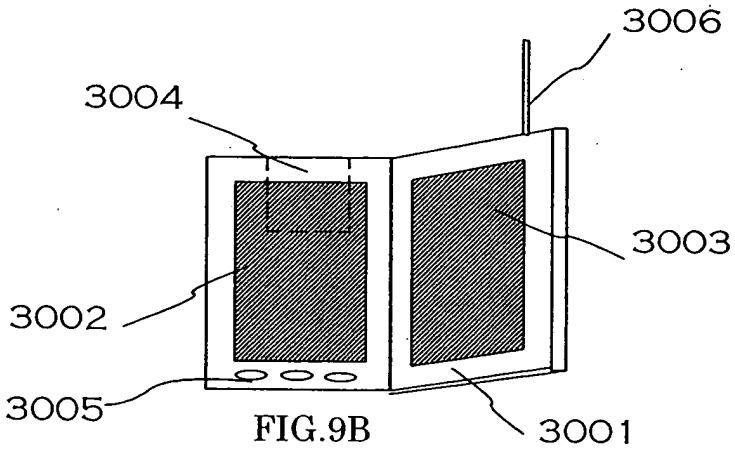


FIG.9B

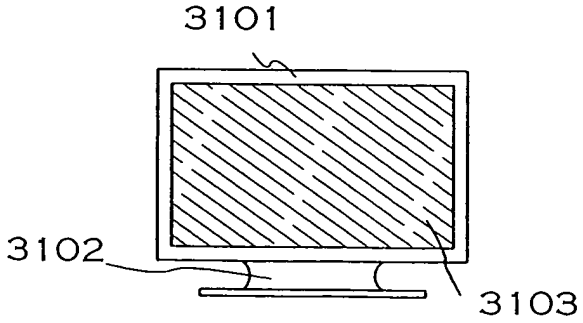


FIG.9C

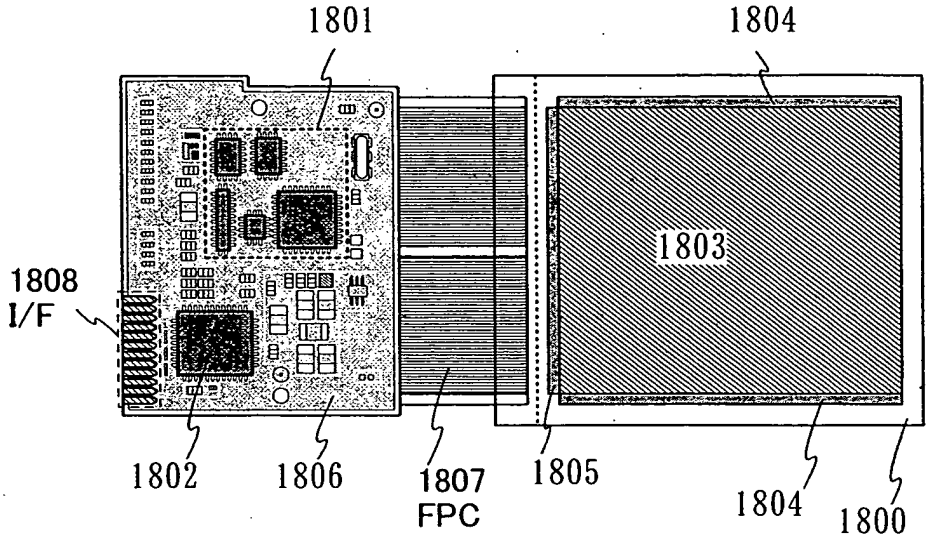


FIG.10A

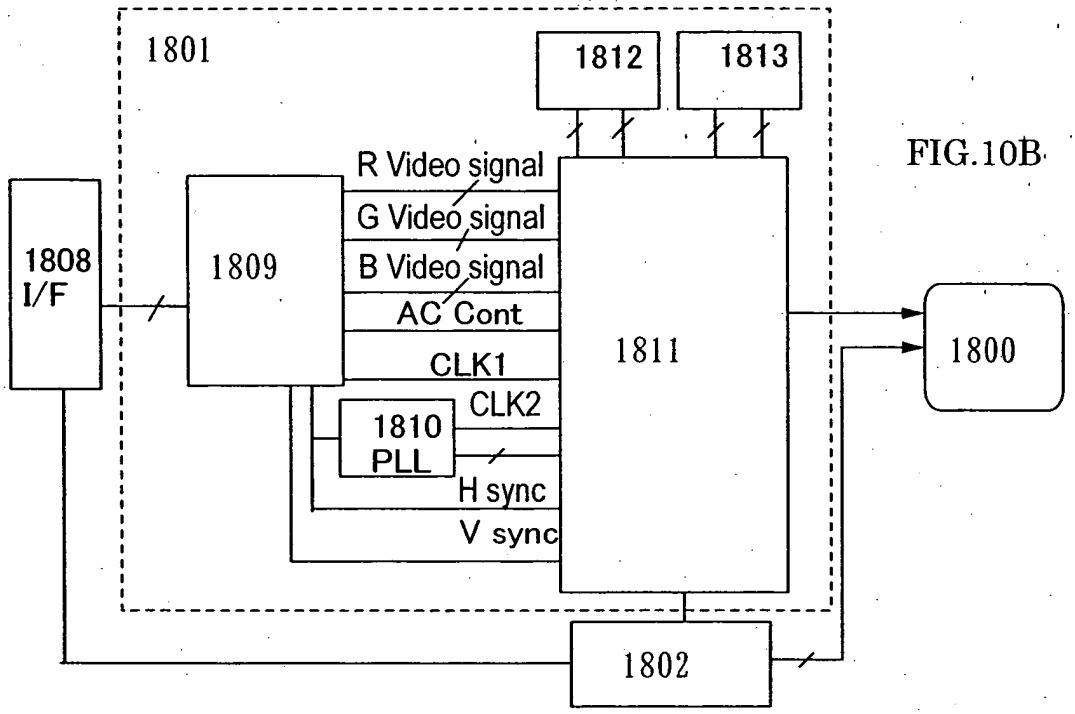
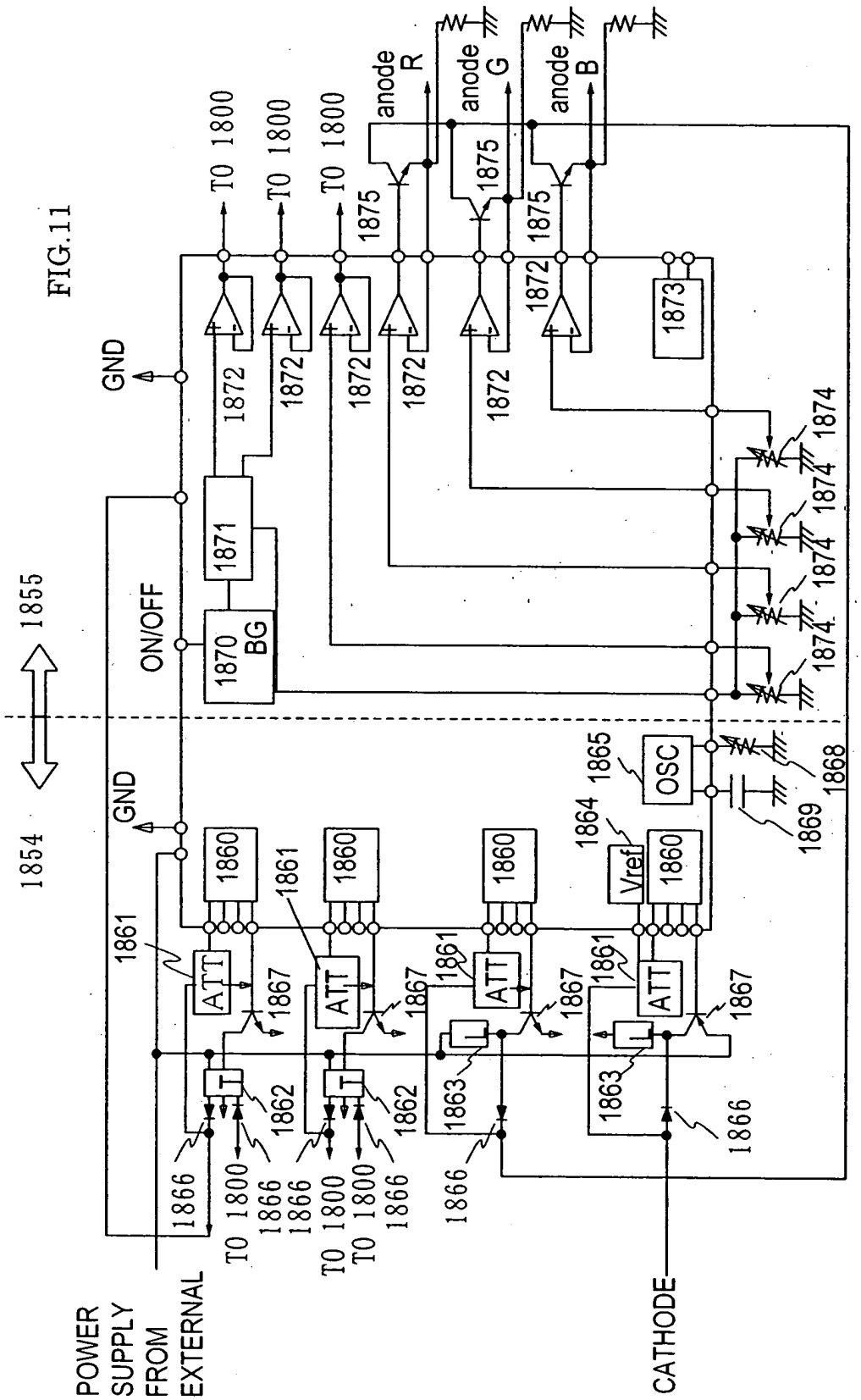


FIG.10B

FIG.11


POWER SUPPLY FROM EXTERNAL
CATHODE
GND
ON/OFF
BG
OSC
Vref
ATT
anode R
anode G
anode B
TO 1800
1854
1855
1860
1861
1862
1863
1864
1865
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1872
1873
1874
1875

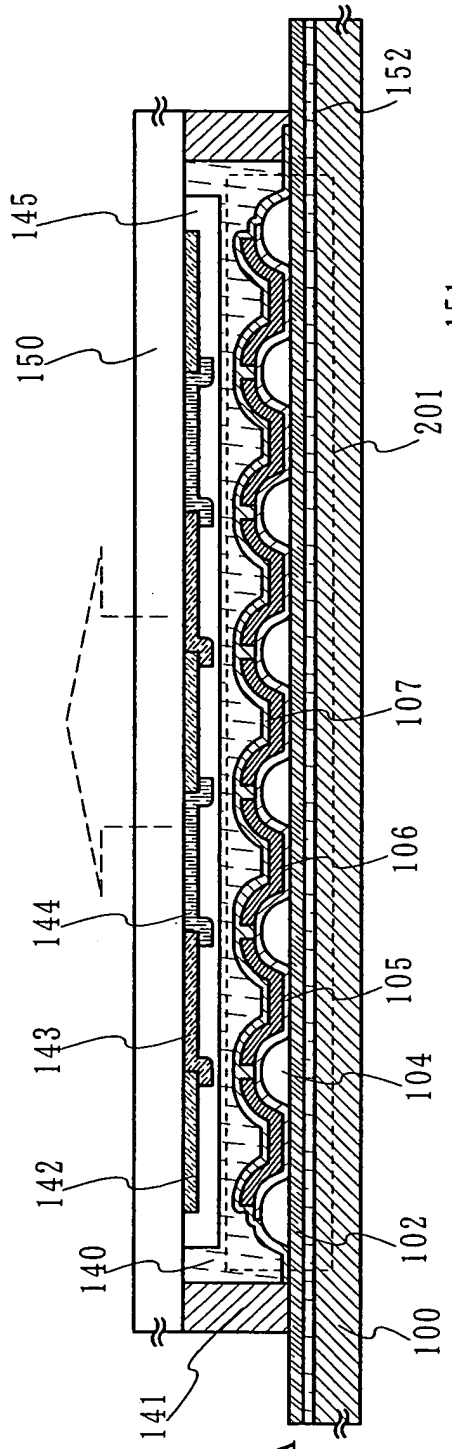

FIG.12A

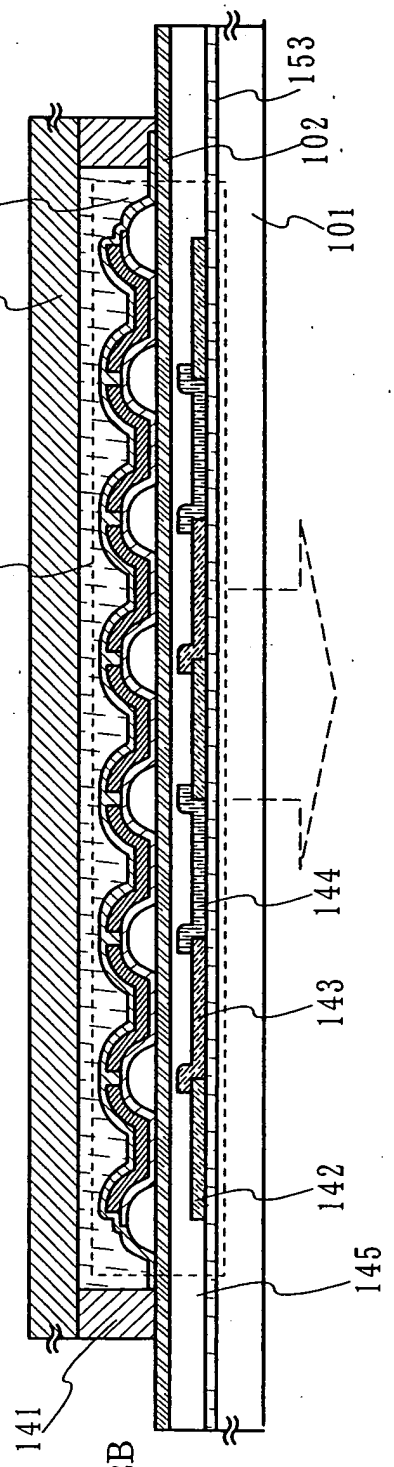

FIG.12B